

June 6 - 12, 2003

<P>The Terra spacecraft is in nominal mode. All instruments are in Science Mode.</P>

<P>The MODIS Solar Diffuser Screen anomaly resolution team headed by the Terra Mission Director is focusing on thermal stress damage as the most likely cause of the incident. Two 30-orbit Solar Diffuser screened calibrations were performed on January 30 and February 25, 2003. A temperature change of 50 degrees Celsius would cause the screen to expand 14 mils, which may be enough to damage Delron spacers between the door and hinge point. The screen will get colder with the door open. Two failure modes (deformation of the Delron bushing and failure of bushing in vacuum as a result of becoming brittle) are being investigated. Raytheon Santa Barbara Remote Sensing (instrument prime contractor) is performing thermal analysis involving these potential failure modes and will provide results to GSFC (including the AETD thermal branch) next week. Raytheon will provide a presentation to the rest of the anomaly team and independent assessors at GSFC to enable determination of the potential course(s) of action. The MODIS Calibration Science Team is investigating alternate calibration techniques to compensate for loss of ability to calibrate via the Solar Diffuser in the event that the screen cannot be reopened.</P>

<P>Terra and other TDRSS user spacecraft have been experiencing occasional K-band dropouts since Wednesday, June 11, 2003. So far this has been largely a nuisance and has not resulted in any real data loss.</P>

<P><B>Plans</B><BR>

Execute MODIS calibration lunar roll maneuver scheduled for June 18, 2003.</P>

<P>The Terra instruments teams continue to analyze data and perform calibrations utilizing the results of the Deep Space Calibration (DSC) Maneuver conducted on March 26, 2003, and the Lunar DSC maneuver conducted during the evening of April 14, 2003. The science teams are not advocating performance of a third DSC prior the October 2003 time frame.</P>